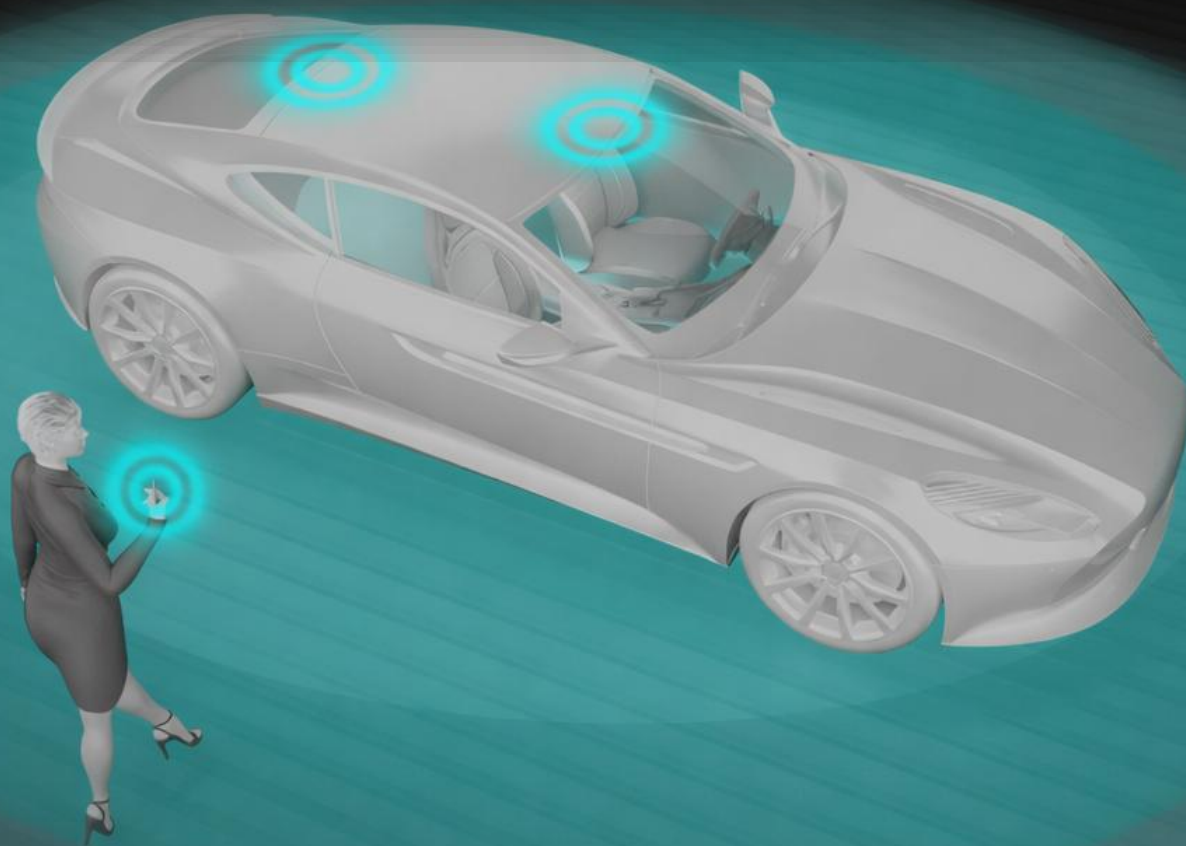


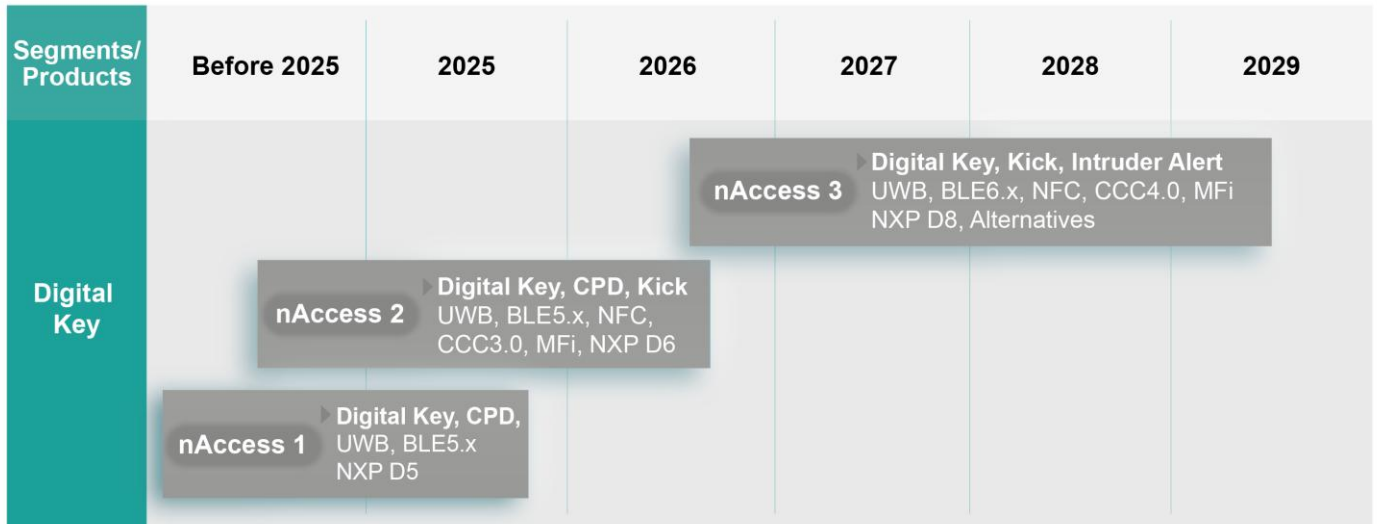
# Customer Case

## JOYNEXT nAccess Series Digital Key Solution



# ▶ JOYNEXT nAccess – Digital Key Solution

▶ Technology Innovator of Digital Key with Advanced AOA Algorithm



- Advanced positioning and fusion:** AOA-based single-anchor positioning technology, with extended radar functions
- High cost-performance ratio:** Reduces the number of anchors by 50% with in-built biometric radar
- Scalability:** Single anchor can be expanded with BLE/Channel Sounding/Sparklink to adapt to various market needs
- Globalization:** First global solution to pass N-CAP certification, supporting ICCE/ICCOA/CCC digital key standards

### Unlocking Function



### Child Presence Detection (CPD)



### Kick Sensor Function



### Sentinel Mode & Intrusion Detection



## ► JOYNEXT nAccess – Digital Key Solution

### ► Technology Innovator of Digital Key with Advanced AOA Algorithm

#### ⦿ Features

**Cost-effective solution:** dual-anchor performance rivals that of 4-6 anchor schemes

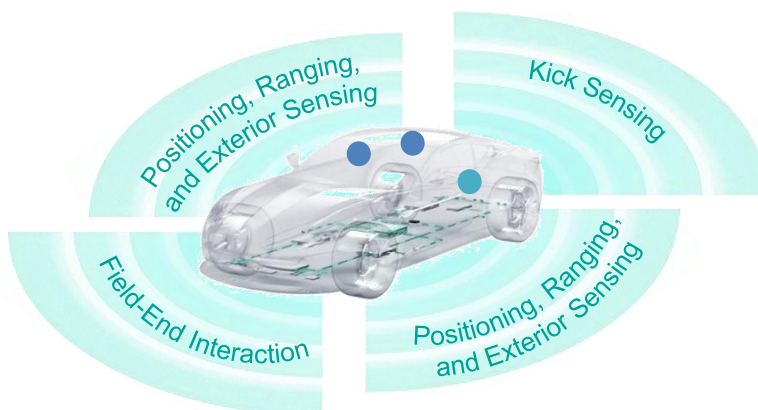
- Integrating the **Telematic Module** solution to reuse both software and hardware
- Enabling digital key anchors to **integrate nSensor** (JOYNEXT UWB Sensing Solution), including functions such as **CPD and kick detection**
- Supporting the system's expansion to accommodate future scenarios such as **multimodal interaction and on-site positioning**

**Full-stack services:** providing flexible, rapid mass production solutions

- Offering a variety of combined solutions and distributed algorithms to meet the needs of different customers and provide a better user experience
- Supporting cloud, vehicle, cell phone, key, and other multi-terminal solutions to provide total user-friendly product services

#### ⦿ Technical details

- Supporting **mainstream chips** both domestically and internationally: UWB chips from NXP and NewRadioTech; BLE/SLE chips from NXP, HiSilicon, TI, and others
- Supporting **UWB+BLE+SLE+NFC solutions**, adaptable to proprietary, ICCE, and CCC protocols, with support for using smartphones as keys
- Enabling software algorithms that support multi-source **data position filtering and intelligent multi-anchor** coordination to offer dynamically optimal choices
- **Delivering High performance:** 1-3 anchors can cover all customer needs



- Fusion Anchors: UWB, BLE, SLE
- Kick Anchor: UWB

## ▶ Customer Case – nAccess 2 Digital Key Solution

### > China's First ENCAP-compliant CPD Product for BYD-Toyota

#### ⦿ Detection

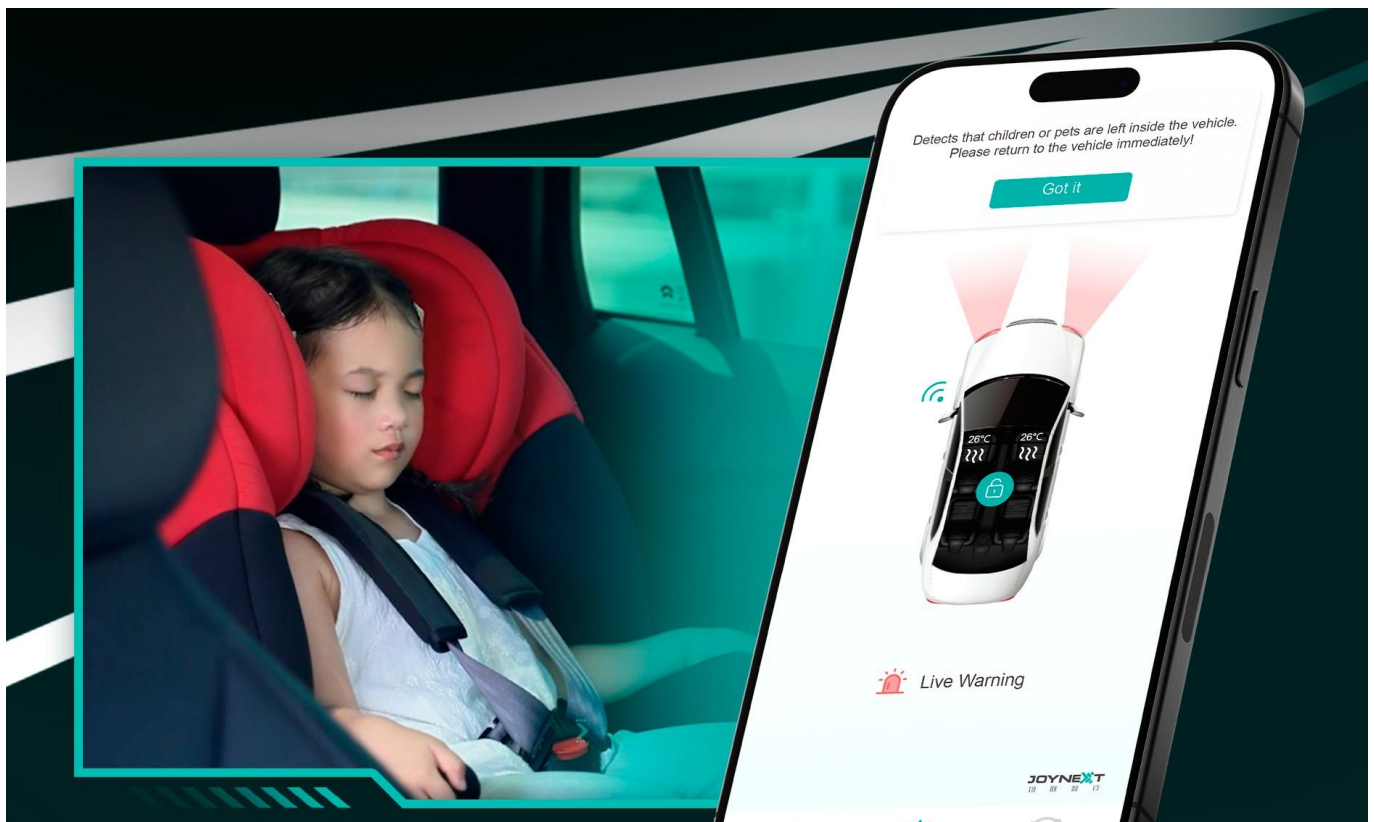
- **Objects:** Children under 6 years old (sleeping and limb movement)
- **Areas:** Covering at least two rows of seats and footwells
- **Scenarios:** Children forgotten in locked vehicles / children enter an unlocked car and become trapped inside

#### ⦿ Warning

- Initial warning
- Escalation warning

#### ⦿ Intervention

- Proactive intervention
- Passive intervention



## ► About JOYNEXT

### > Company introduction

JOYNEXT is a leading AutoTech company, the Automotive Connectivity BU of JOYSON Electronics. Headquartered in China, we have 1,700+ employees across 5 R&D centers, 3 global manufacturing locations, and 9 customer centers around the world.

We develop technologies for intelligent connected vehicles and provide a highly personalized mobility experience that is empathic, safe, and adaptable. With over two decades of experience as a Tier-1 supplier to the world's top automotive makers, we have established and maintained long-term partnerships with leading automotive brands, such as VOLKSWAGEN, Audi, BMW, NIO, BYD, Toyota, etc.

JOYNEXT intelligent cockpit and smart connectivity solutions have been applied in over 24 million vehicles globally. In response to the trend of transformation in the intelligent automotive industry, JOYNEXT continues to expand technological boundaries to facilitate industrial development. The company proactively develops cockpit-driving fusion solutions for central computing, embracing the future development trend of multi-domain integration.

With a dual focus on innovation and sustainable development, JOYNEXT actively work with several ecological partners such as HUAWEI, Qualcomm, Horizon Robotics, Black Sesame Technologies, Momenta, QNX, Elektrobit, and Baolong to jointly promote the transformation of the intelligent automobile industry and continue to shape the mode of travel for generations.

## ► Contact Us

For any suggestions or questions, please scan the following QR code to contact us.

Email: [contact@joynext.com](mailto:contact@joynext.com)



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